

# NUMERACY

First name ANSWERS

Last name 30 minute test

School NON - calculator

Class \_\_\_\_\_

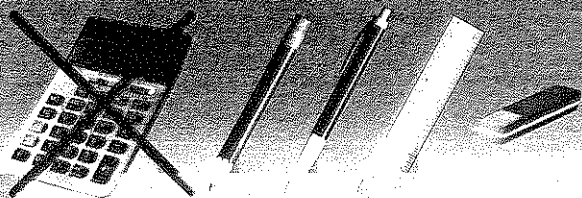
Date of birth ○○ ○○ ○○○○

Date of test ○○ ○ 5 ○ 2 0 1 3

Total score  (maximum 36)



National Numeracy Tests



Llywodraeth Cymru  
Welsh Government

1

Costs	
£42.19	40
£29.79	30
£56.45	60
£72.99	70

Estimate the total cost.

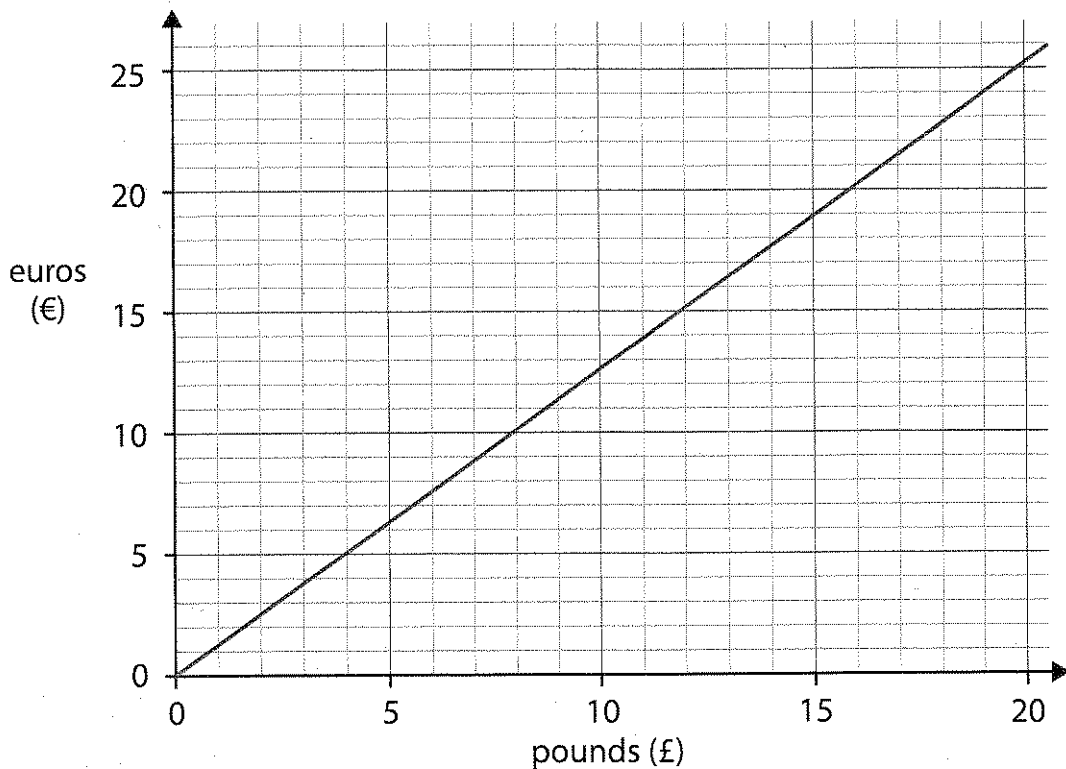
ACCEPT  
any  
answer between  
190 - 210

£ 200

1m

2

Exchange rate graph for pounds (£) and euros (€)



anything  
18.80 - 19  
£15 = 19 €

1m

£ 32 = 40€     20€ = £13.80

1m

anything 31.50 - 32€

3

$$629 - 32.5 =$$

$$\boxed{596.5}$$

$$\begin{array}{r} 5 \overset{8}{6}29.0 \\ - 32.5 \\ \hline 596.5 \end{array}$$

1m

4

$$\boxed{25} \%$$

$$\text{of } 800\text{g} = 200\text{g}$$

1m

$$20\% \text{ of } \pounds 90 =$$

$$\boxed{\pounds 18}$$

1m

5

Write  $<$ ,  $>$  or  $=$  in each box.

20%

$$\boxed{>}$$

0.02

0.7

$$\boxed{<}$$

$\frac{4}{5}$

$\frac{1}{8}$

$$\boxed{>}$$

15%

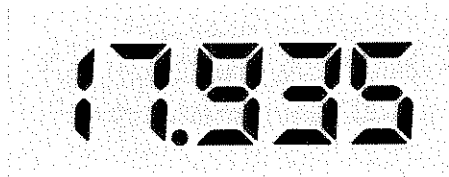
95%

$$\boxed{=}$$

$\frac{19}{20}$

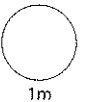
2m

- 6 A calculator shows:



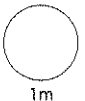
Round the number to **2 decimal places**.

17.94



Round the number to **2 significant figures**.

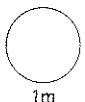
18



- 
- 7 How many **quarters** are there in  $5\frac{3}{4}$ ?

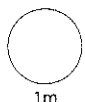
$$3 \times 4 + 3$$

23

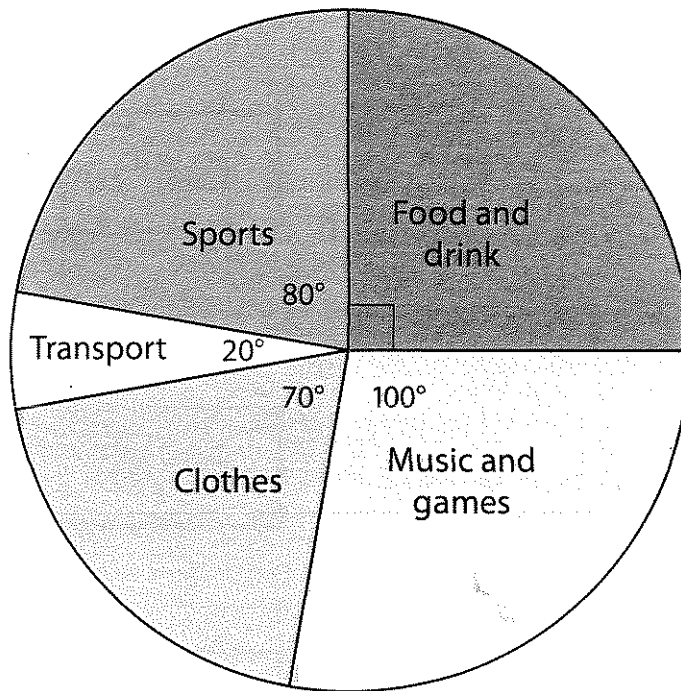


Write  $\frac{30}{7}$  as a mixed number.

$4\frac{2}{7}$



## How Lauren spent her pocket money



What **fraction** did Lauren spend on **sports**?

Write the fraction in its simplest form.

$$\frac{80}{360} = \frac{8}{36} = \frac{4}{18} =$$

$$\frac{2}{9}$$

Lauren spent £14 on **clothes**.

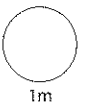
How much did she spend on **transport**?

$$70\% \text{ of } £14 = £9.8$$

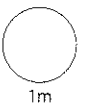
$$10\% = £1.4$$

$$20\% = £2.8$$

$$£ 4$$



1m



1m



TOTAL

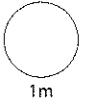
5m

- 9 An aeroplane travels 2725 miles in 5 hours.

What is its average **speed**?

$$\begin{array}{r} 545 \\ 5 \overline{)2725} \end{array}$$

545 miles per hour



1m

10

$$28 - (5 + 6) \times 2 =$$

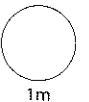
6

Bidmas!

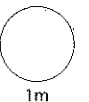
$$2 \times 5^3 =$$

250

$$2 \times 125$$



1m



1m

11

Ali is using a map with a scale of 1 : 10 000

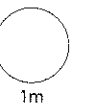
He walks a path that measures 4 **centimetres** on the map.

How many **metres** does he walk?

$$4\text{cm} : 40\,000\text{cm} \searrow \div 100$$

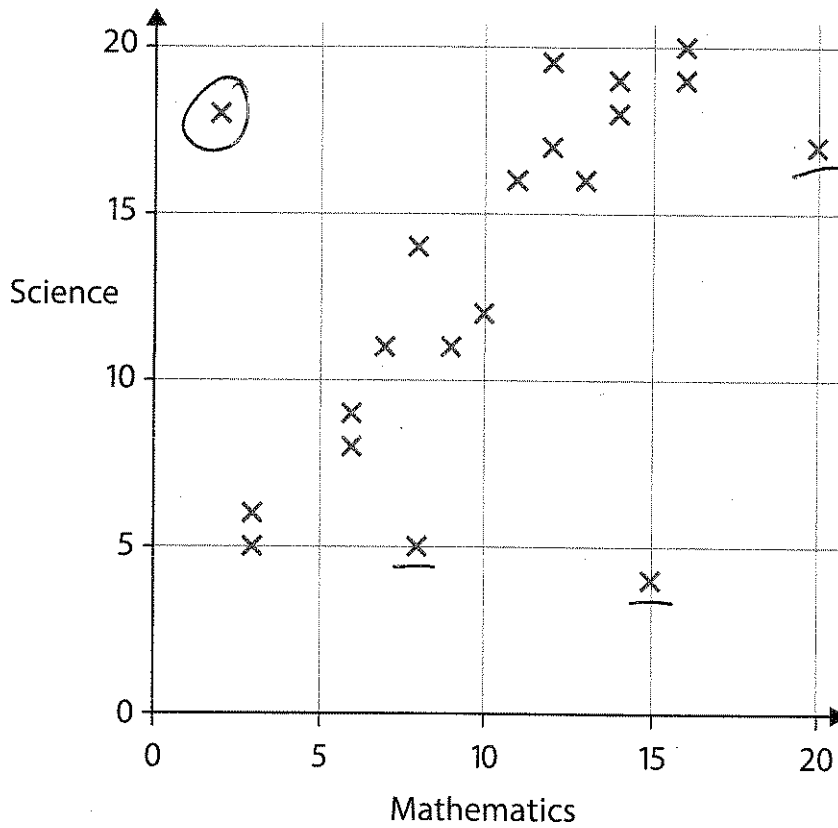
$$4\text{cm} : 400\text{m}$$

400 metres



1m

Marks for class 9A in science and mathematics tests



How many pupils got **more** marks in mathematics than science?

3 pupils

1m

One pupil was ill in the mathematics test.

Circle the point on the graph that is most likely to show this pupil.

1m

What kind of **correlation** does the scatter graph show?

Positive

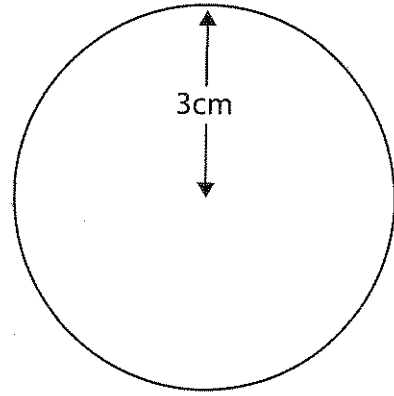
1m


TOTAL

7m

13 Work out the **circumference** of the circle.

Use  $\pi = 3.14$



  $r = 3$  so  $d = 6\text{cm}$

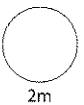
$C = \pi \times d$  (or  $2\pi r$ )

$= 3.14 \times 6$

$$\begin{array}{r} 3.14 \\ \times 6 \\ \hline 18.84 \end{array}$$

18  
0.6  
0.24

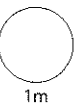
18.84 cm



14

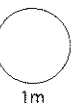
The **cube root** of 8 is

2



The **reciprocal** of  $\frac{2}{3}$  is

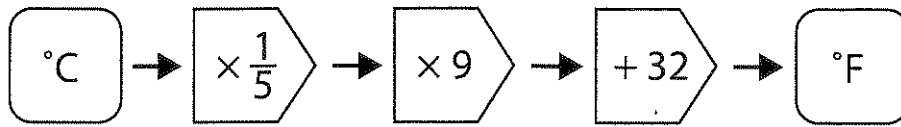
$\frac{3}{2}$



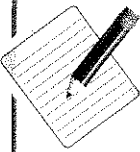


15

Formula to change temperature in °C to °F



What is 30°C in °F?

  $30 \times \frac{1}{5} \times 9 + 32$

$30 \div 5 = 6$   
 $6 \times 9 = 54$   
 $54 + 32 = 86$

**86 °F**

2m

(1 mark for correct method with 1 error)

16

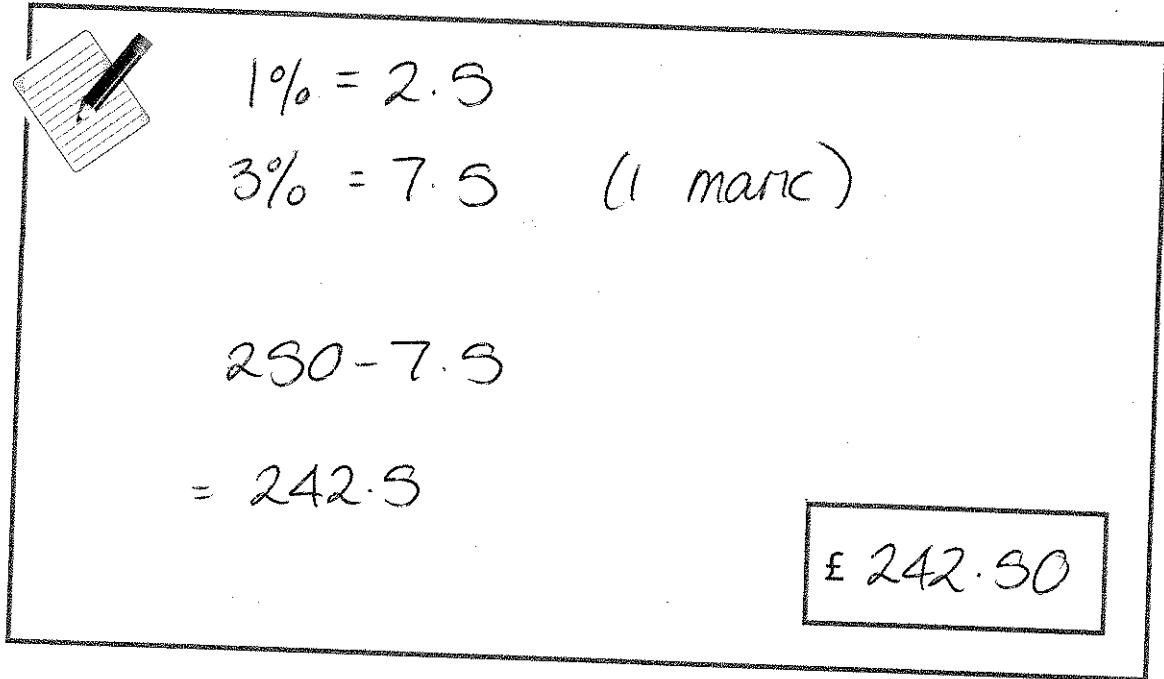
$0.4 \times 0.2 =$  **0.08**

1m

17 David invests £250 in an account.

After a year, the amount has **decreased** by 3%.

How much money is there now?



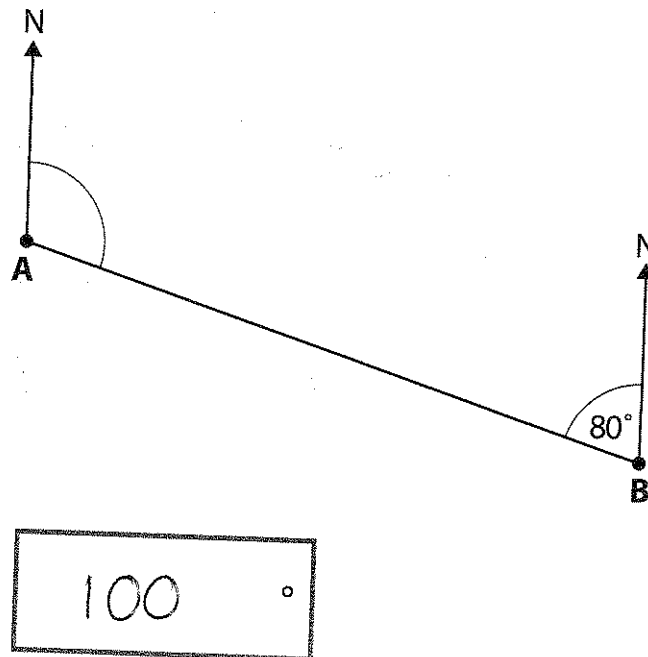
Handwritten solution for question 17, enclosed in a rectangular box. In the top left corner, there is a small drawing of a notepad and a pen. The calculations are as follows:

$$1\% = 2.5$$
$$3\% = 7.5 \quad (1 \text{ marc})$$
$$250 - 7.5$$
$$= 242.5$$

The final answer, £242.50, is enclosed in a smaller rectangular box in the bottom right corner of the main box.

2m

18 What is the bearing of **B** from **A**?



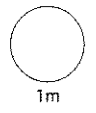
$$\begin{array}{r} 180 \\ - 80 \\ \hline 100 \end{array}$$

100°

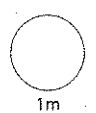
1m

19

$10^5 \times 10^2 = 10^7$



$10^9 \div 10^3 = 10^6$

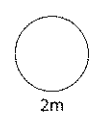


20 Work out  $11.07 \div 0.9$

$$\frac{11.07}{0.9} = \frac{110.7}{9}$$

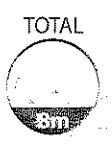
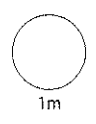
$$9 \overline{)110.7} \begin{array}{r} 12.3 \\ \underline{18} \phantom{.0} \\ 30 \phantom{.0} \\ \underline{27} \phantom{.0} \\ 30 \phantom{.0} \\ \underline{27} \phantom{.0} \\ 30 \phantom{.0} \\ \underline{27} \phantom{.0} \\ 30 \phantom{.0} \\ \underline{27} \phantom{.0} \\ 30 \phantom{.0} \end{array}$$

**12.3**



21 Complete the table.

Number		Standard form
40 000	↔	$4 \times 10^4$
3 900 000	↔	$3.9 \times 10^6$



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